

CHAPTER 9

Time of Trials

March–June 1980

Our quality assurance was not that good. Not that good? It was almost non-existent.

Maj. Gen. Max Noah ¹

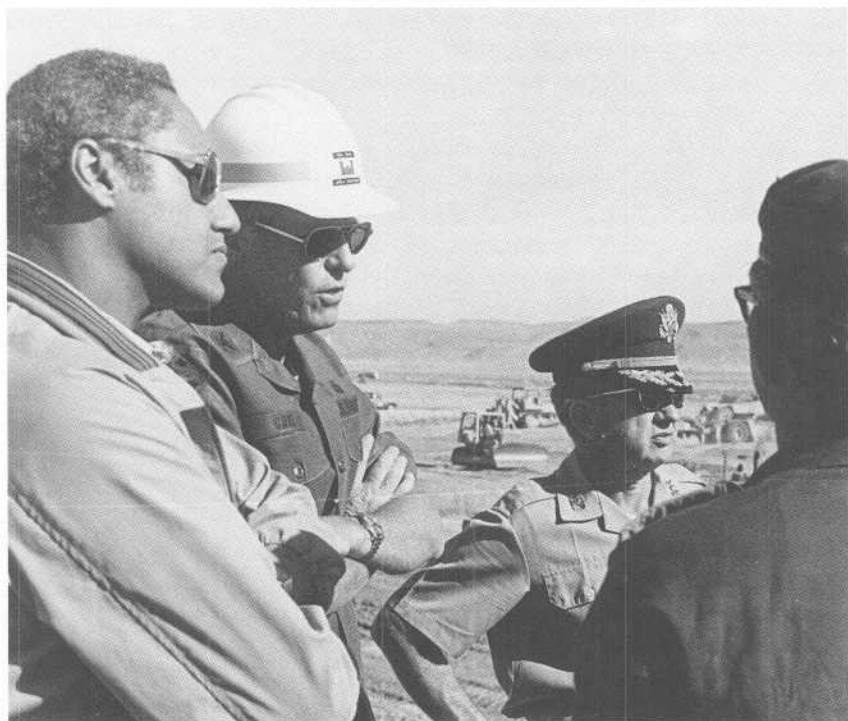
We just do not have control of this job to the extent that we should have.

John J. Blake, Deputy Area Engineer, Ovda ²

General Noah was still in Israel when the first of the problems that hit the program in the spring of 1980 began to unfold. The season proved difficult at the sites and in Tel Aviv. Labor relations, contractor and government management, and procurement of materials all proved troublesome. Overall, these problems shook Israeli confidence in the ability of the Near East Project Office to do the job, sidetracked construction at both sites, and kept management from concentrating on development of an efficient construction routine.

By the time that the winter rains ended and the desert flowers bloomed, some Americans as well as Israelis expected that securing the supply of reinforcing steel bars would be difficult. The Israeli Air Force's specifications called for ten different sizes of bars, with diameters from 6 to 25 millimeters. These rods strengthened the concrete in the many hardened buildings on both bases. In addition to the aircraft shelters, these structures included the control towers and terminals, assorted communications and utilities buildings, operations headquarters, some maintenance facilities, and personnel shelters.³

Steel supply grew more important in the early spring with shelter construction about to move into a major new phase. Some footings were still being poured and wall panels were still being placed on the vertical steel dowels but preparation for arch construction also began. These arches consisted of concrete poured over com-



Secretary of the Army Clifford Alexander confers with Colonel Curl and Colonel Gilkey at Ovdá.

plex networks of reinforcing steel. In the shelters and other hardened buildings, Israeli design tended to call for smaller bars than those the Americans normally used. The Israelis bent a great number of the small bars by hand into a tight mesh over which they placed concrete. The completed wall resembled glass-encased chicken wire. Like other aspects of Israeli design that tended to be labor intensive, this method reflected the relatively low wages of workers compared to the cost of machines in Israel. Americans, on the other hand, usually faced higher wage and benefit costs. So they used fewer and larger rods, which they bent by machine.⁴

The specifications for this steel called for 15 percent elongation—elasticity under impact—to assure that the structures could withstand an air attack. This standard applied to bars used in the shelters as dowels for vertical columns and in wall panels and arches. Steel for footings and foundations did not have to meet this standard, which apparently originated in South Africa. Although unfamiliar to the Americans, this requirement represented standard Israeli practice for hardened structures. In October 1979

the Israeli architect who worked on the shelters notified the project of this specification. It also appeared on the site-adaptation drawings that had begun to trickle in, and the requirement was well known within the Tel Aviv office by then.⁵

Although the Near East Project Office understood from the outset that problems in procuring this special steel could seriously affect the schedule and cost, the awareness came slowly at Ovda. The first indication that something was awry came from General Bar-Tov's office. In January 1980 his economic adviser, Eli Noy, claimed that the bidding process for awarding contracts for the steel contained substantial irregularities. He believed that Hamegader-Barzelit, the Israeli firm that won the contract, became the lowest bidder only after submitting a revised bid that did not include taxes within its price. Some of the other bids, all of which contained the duties, otherwise would have been lower. The Ministry of Defense also wanted assurance that the steel, which had been manufactured in South Africa by an affiliate of Hamegader, met specifications.⁶

The steel was already in Israel when Negev Airbase Constructors awarded the contract to Hamegader. It had been delivered between June and October 1979. Negev Airbase Constructors bought the steel later, with purchase orders dated in December 1979 and January 1980. In the interim the bars had sat in the bonded warehouse at the port of Eilat awaiting a buyer and payment of import duties. Colonel Curl, the area engineer at Ovda, later recalled that "a lot of the bundles were loose [and] a lot of the identifying tags were missing." His office had neither the staff nor the procedures to control quality; his contractor had "sort of a start of a quality control program." But he needed the steel, the vendor assured him that it met specifications, and the tests he was able to run indicated that the bars met the requirements.⁷

The expressions of concern within the Ministry of Defense brought reassurance but no significant action. In early February Colonel Gilkey in Tel Aviv replied by reviewing the procedure for quality control, concluding that "it is considered that all concerned are aware of potential problems and have taken measures to insure compliance."⁸ Colonel Curl confirmed Noy's claims that procedures had been irregular and bids had been evaluated improperly but remained confident of the quality of the materials.⁹

Curl had reasons for considering the matter unimportant. His experience indicated that many construction materials—notably concrete, aggregates, and cement—could cause problems but reinforcing steel never did. Moreover, in spite of the disarray of the bundles at the port, logic led him to infer that the steel was as

promised: "It used to be bundled together, it came on the same ship, it came from the same steel mill, and there's no way on God's green earth that another piece of steel could have got into that shipment, so you assume that although the bundle was broken it was the same as that bundle was originally packed."¹⁰ His response to queries from Gilkey's office reflected his view. Although Gilkey asked him to wire his assessment of the situation within five days, Curl took an extra week and replied by mail. Moreover, he brushed aside the problem, attributing it to contradictory guidance from Tel Aviv. He said the contractor would employ sound procurement principles in the future.¹¹

Both Gilkey and Curl had reacted defensively to outside criticism. Neither took the concerns of the Ministry of Defense at face value. Gilkey had fended off Noy's comments with a restatement of his operating procedures. Curl in his turn had tried to blame Gilkey's office for whatever problem existed. The Israelis brought the matter up again on 21 February in a meeting of the program managers attended by both Noah and Gilkey. This time the questions concerned the quality of the steel and the possibility that sub-standard bars had been used in vertical columns of the aircraft shelters. Bar-Tov said some of the steel had been delivered without proper identification tags. Hartung had Curl's assurance that the steel was properly segregated by type, but Willy Rostocker, a retired Canadian steel expert who worked as a dollar-a-year consultant to Bar-Tov, insisted that Curl's claim was inaccurate.¹²

On the same day Colonel Kett from Gilkey's office visited Ovda and raised similar questions. He verified Bar-Tov's contention that the steel was not identified clearly. In fact, Kett reported, the bars were so poorly labeled and sorted that he could not tell whether they met standards. "If this were not a fast-track project, CPFF project," Kett wrote, "there is no doubt in my mind that a critical material of construction such as reinforcing steel would not be acceptable in its present condition." He urged "that the steel in question not be utilized while reasonable ambiguity as to its properties exists."¹³

Three days later Gilkey took action. He now feared that the bars already used in precast shelter panels might not meet specifications and that the seller might have misrepresented the steel to the contractor. He told Curl to formally notify Negev Airbase Constructors that they used improperly identified steel at their own risk. If random sampling detected the use of improper bars, Curl was to reject the panels at the expense of the contractor. Moreover, the cost of the testing itself was to be borne by the contractor.¹⁴

Despite these measures, the complaints continued. The loudest and most persistent protests came from Willy Rostocker. The

second volunteer adviser brought to the Israeli program manager by Deputy Defense Minister Zippori, Rostocker had come after the death of Morris Hornstein, the 72-year-old former president of the New York-based Horn Construction Company. Hornstein, whose firm had worked on the Verrazano Narrows Bridge connecting Staten Island and Long Island, had served Bar-Tov as a troubleshooter and as sort of a cultural bridge, explaining American construction methods and practices to the Israelis.¹⁵ After he died in the fall of 1979, Bar-Tov said the American had "invested his soul into the building of the air bases in the Negev."¹⁶ While the respect for Hornstein appeared to be universal, Rostocker inspired a different reaction. Impatient, disorganized, and indifferent to his severely high blood pressure, Rostocker was known to barge into offices, Israeli or American, open drawers, copy documents, and leave. Then, with sheaves of papers in hand and blood streaming from his nose, he would demand a hearing from Bar-Tov or his civilian deputy Avi Sharon. Some of the Americans, Curl among them, disliked Rostocker and considered him a nuisance. Some of the Israelis seemed to agree.¹⁷

Even at the Ministry of Defense, Rostocker had trouble getting an audience. To all who would listen, he insisted that the problems remained unsolved. He had said so at meetings with the Americans and within his own office. Finally, Sharon had asked auditor Naomi Kogon to hear him out: "Do me a favor. Find yourself a few hours. Sit down with Willy and see what he wants."¹⁸

In early March Rostocker also aroused some interest among the Americans. He collared General Lewis, who was in Israel to review progress. "In an excited state," as Lewis recalled, Rostocker asked for a meeting. Lewis agreed to an evening discussion at his room in the Palace Hotel. There, Rostocker spread his documentation, including photostats of canceled checks and purchase orders, on the rug in front of Lewis and Noah.¹⁹ The story unfolded over a bottle of scotch. While Lewis took notes and marveled at the accumulation of papers, Rostocker argued that the project had received at least one shipment of steel that did not meet specifications. He insisted that the purchase of steel had been mismanaged and perhaps even marked by fraud.²⁰ Noah was surprised. "It had not come to my attention or Lewis' attention or any of the management's attention," he recalled, "that there was a problem as severe as was purported to be."²¹ When the session was over and the scotch was gone, Lewis decided "to move and move quickly."²²

The next morning Lewis brought the Defense Contract Audit Agency into the picture. The agency had a branch in Tel Aviv that had opened in the summer of 1979 in conjunction with the air

base project. The audit team led by Michael Maloney had representatives at both sites as well as in its main office at the Palace. Maloney reported to his agency's regional headquarters in Boston and worked independently of Gilkey's office. His primary task involved evaluating contractor claims for reimbursement of costs.²³ Lewis "told the auditor to get on this right away . . . and . . . to get a hold of Willy and start exploring."²⁴

Simultaneous pressure for remedial action also came from the American program management office. Lt. Col. James R. Cranston from General Hartung's program management staff went to Ovda and spoke with Curl. He learned that the area engineer had not notified the contractor that he used questionable steel at his own risk. According to Cranston, Curl thought to do so would be tantamount to stopping the job, and he felt he lacked sufficient grounds for such action. Cranston reported that Curl had discussed his position with Gilkey and that Noah also knew that the contractor had not been warned.²⁵ Hartung was appalled. He also felt betrayed. Only one day before Cranston's visit to Ovda, Hartung had assured Bar-Tov that Curl had taken adequate steps to prevent use of questionable materials and that Negev Airbase Constructors was absorbing the financial risk. "We cannot," he wrote Noah, "continue to operate with agreements being made with MOD that are subsequently reversed, with no discussion prior to such action being taken." Perhaps recalling Gilkey's move from the IBM Building, he complained that this was not the first time that the Corps of Engineers had put him in an untenable position. In any case, "whether . . . caused by arrogance or just not paying attention to business, it is not the professional performance expected of the United States Department of Defense."²⁶

Noah immediately apologized for the embarrassment the situation had caused Hartung. He regretted the breakdown in communications and agreed that "DOD elements must do better." Noah denied knowing that the "letter had not been sent to the contractor for whatever reason," but agreed that "this type of thing should not happen again."²⁷

On the next day Curl learned that some of the steel had failed tests. Elongation was apparently not the problem; all samples met that particular standard. Instead, the failures involved yield tests. The strength of the steel in some of the samples did not meet project specifications.²⁸ Curl was not by nature an equivocator. When he recognized the problem, he acted immediately. He suspended construction of all structures that included reinforcing steel and ordered the contractor to take corrective measures. These included inventory and removal of any substandard steel on hand, identifica-

tion of structures in which any of the steel might have been used, and an engineering evaluation of the soundness of such structures. Curl attributed the situation to a failure of the contractor's quality control program and stressed "adequate controls must be initiated immediately to prevent similar unsatisfactory performance in the future." He gave Warren Pettingell three days to submit a quality control plan and a report on the situation.²⁹

While Pettingell prepared his response, rumors flew. Maloney's office had just started its investigation, and the auditor would say only that he thought the entire purchase had been badly managed. This report did not satisfy the program managers, who claimed that the steel transactions reflected fraud on the part of the supplier and the construction contractor. Even before the issue emerged, Bar-Tov's office had been certain that operations at the sites were shot through with criminality. Auditor Kogon said, "We knew there was . . . some corruption there. We couldn't put our finger on it."³⁰

In this climate gossip and hearsay, including claims of collusion between the contractor and the Corps and other wrongdoing, was hardly surprising. Nevertheless, it was disruptive. At Ovda Curl's deputy cautioned the area office staff not to become preoccupied with the allegations: "Unless there is substantive evidence, our people should not presuppose the outcome and the findings."³¹

Pettingell delivered a draft of his plan to Curl in a day. He outlined a procedure that would free the steel on hand for use. Essentially his proposal required withdrawing from the site all steel that was known to have failed tests as well as steel that was unidentified and untested. Pending their removal, these rods were segregated, banded in red, and marked clearly in Thai and English to preclude inadvertent use. Then he wanted to refill his racks with satisfactory steel, which would be tested against accompanying mill certificates. In the future he intended to accept only clearly marked and certified bundles. The area office's instructions on the control of steel quality incorporated all of these proposals. Noah added the requirement that all steel should be tested for quality at the port rather than after delivery to Ovda.³² The assumptions under which Ovda worked clearly had changed. No longer would steel be presumed adequate based on circumstantial information.

Pettingell and Curl still faced another important matter. They had to determine how much substandard steel had been used and where. Initially, they knew only that they had fabricated but not emplaced forty-seven wall panels that might contain some of the inferior materials. They soon learned how fortunate they were: the problem did not extend much further. In shelter complex five, the footings and nine wall panels contained suspect steel; the Israelis

decided to accept the footings even with the mild steel. Tests of the steel inside the wall panels, on the other hand, disclosed that proper materials had been used. Otherwise, everything that had been built was up to standard.³³

An arrangement with the area office and contractor at Ramon assured that, if needed, Ovda could borrow enough steel to continue construction. Overall, Ramon was about one month behind Ovda in its procurement program and was receiving a valuable lesson from the trouble at the southern site. In any event a loan proved unnecessary, and Ovda was back on schedule fairly quickly. In less than a week, enough suitable steel had been identified for the fabrication of wall panels to begin anew.³⁴

By this stage the issue transcended engineering and procurement remedies. The problem had become political and was beyond the control of the area office and the contractor. Maloney's inquiry did not stop claims that the steel transactions might have involved fraud. He found that some of the purchasing documents had been deficient, that the supplier had not been the low bidder, and that Negev Airbase Constructors had paid for some steel before receiving it. Something had to be done to lay the allegations to rest and restore confidence in the integrity of the program.³⁵

At Noah's suggestion, Gilkey appointed a board of officers to conduct an informal investigation. During the last week of March, the board examined procurement of the steel and the procedures used to control the materials after purchase. Colonel Wong, the communications officer, served as chairman, and the membership included Cranston and a nonvoting consultant from Bar-Tov's office as well as Lt. Col. George Snoddy and Maj. Stephen Sharr from the Corps.³⁶ Bar-Tov still wanted a criminal investigation. Instead, it seemed to him that the Americans planned to cover up their wrongdoing. Because he suspected they were engaged in dubious and possibly criminal practices, Bar-Tov was frustrated by his inability to control the situation. "He was very vitriolic," John Blake noted at Ovda, "and accused the Corps of stalling, allowing documents to be lost, appointing people to the board with no investigative experience, et cetera, ad nauseum."³⁷ Still, Noah convinced him to let Kogon work with the board after she assured him that she would not participate in a whitewash.³⁸

The board studied the issue for nearly a month. Meanwhile, Negev Airbase Constructors dismissed its procurement manager without waiting for the board's report to Gilkey. In Bar-Tov's office, the sudden change seemed to confirm the suspicions of criminality. Although the findings mentioned no names, no one escaped unscathed. The board concluded that almost every level of pro-

curement operations lacked controls. In addition, the program's procedures and quality assurance system and the contractor's purchasing, receiving, and payment methods all needed sharper definition. Because the published guidelines were vague, the contractor's purchasing documents had not been reviewed in Tel Aviv by the engineering division or the procurement office.³⁹

As to the steel itself, it had been manufactured to a British Commonwealth standard with which Americans were unfamiliar. It also had been poorly marked and improperly segregated in storage. Over 58 metric tons of a total of 8,218 had been found to be inadequate and had been returned to the vendor by the contractor. In the few weeks after completion of the board's report, an additional 1,600 tons of badly labeled steel were set aside and removed from Ovda. The effect on operations turned out to be minor; estimated loss of production was between two and four weeks.⁴⁰ The precast concrete plant was idle for eight days. The contractor also fell behind two weeks in placement of wall panels "while tests were run, stocks were segregated and the problem scoped."⁴¹

Problems lingered into the late spring. Slowly, morale and momentum at Ovda recovered from the distractions. In Tel Aviv Bar-Tov still had his misgivings about the integrity of the procurement system. Rostocker continued his crusade in the steel yard, interviewing contractor personnel and examining documents. Several times, Curl, Blake, and contractor management complained of Rostocker's activities. Blake considered him "a general nuisance," and Curl once ordered him to have no contact with Negev Airbase Constructors employees, but to no avail. The year ended as it started, with Ovda complaining about Rostocker's meddling. By the same token, the adversarial relationship between Bar-Tov and Hartung on one hand and the Corps of Engineers on the other continued unabated. Moreover, the Israelis were slow to release additional steel from the port at Eilat, so Gilkey's office again alerted Ramon that loans of steel might be needed. As it turned out, borrowing once more proved unnecessary.⁴²

Meanwhile, Ovda made some gains in efficiency by streamlining steel purchases. The contractor reduced the ten originally specified sizes to five by eliminating the smallest sizes and substituting larger ones. By doing so, Negev Airbase Constructors cut costs and simplified their buying system without reducing the soundness of any buildings. In addition, the contractor decided to limit future reinforcing steel purchases to the special steel, thereby further simplifying its inventory and enhancing the integrity of reinforced structures on the base.⁴³

Despite the problems, the episode may have had some positive effects. As a result of the focus on the need for a more careful accounting of bulk materials, the contractor finally installed truck scales. In January Colonel Miller, Curl's deputy, had asked Negev Airbase Constructors to buy scales. That same month, O'Shei had approved a request from his contractor for the purchase of scales at Ramon as well. However, neither consortium was in a hurry to spend the money, and the headquarters in Tel Aviv only began to apply pressure in the wake of the steel issue. Negev Airbase Constructors put in their scale in May; the Atkinson organization followed suit in August.⁴⁴

Steel started to arrive at Ovda again in late April. Under Blake's direction, production gradually returned to normal, within a more deliberate and cautious managerial framework. For Lewis and Noah, the problem called into question Pettingell's ability to carry out the job. At least the episode came early enough to teach useful lessons without irrevocably harming the job.⁴⁵ As Noah said, looking back at the problem three years later, "It just wasn't that big a deal. We made a mistake, and there she was."⁴⁶

Soon both contractors completed their first arch roofs over aircraft shelters. On 31 May 1980, Ovda installed the first one. Fifty-nine more waited, but the area office reported that "morale of the entire work force soared due to placement of the first shelter arch." In the next two months Ovda finished seven, averaging 16 days on each.⁴⁷ Ramon poured its first arches in June. In the first shelter, steel placement took 20 days, and the pour lasted just under eight hours. On the second, the iron workers needed only 10 days to bend and tie the reinforcing steel and just over five hours to place the concrete. Colonel O'Shei hoped to reduce the time even further. His successor as area engineer at Ramon, Col. Paul W. Taylor, echoed O'Shei's optimism and reported in July that major vertical construction remained on schedule. By the end of the month eleven arches had been completed.⁴⁸

Mere statistics do not reveal the difficulties involved in completing a shelter arch. After the walls of a shelter were erected, a jumbo arch form was set up between them. The prime contractors fabricated six of these forms at each site. Workers rolled sections of the forms into the shelter, bolted them together, jacked the form into place, and secured it. They then covered the huge steel frame with steel sheets, which were tack-welded into place to form a dome. Workers climbed onto the plates, where they bent and tied the reinforcing steel into a very dense network of mesh over three feet thick from top to bottom, with individual steel bars only a few inches apart. Temperatures soared to more than 140 degrees Fahrenheit,

and the glistening steel dome of the jumbo arch form only intensified and reflected upward the vicious heat. Then came the concrete placement, a monolithic pour of approximately 450 cubic yards of concrete, that lasted almost all day. This phase always started early in the morning, while the weather was relatively cool. To assure that the concrete did not set too rapidly, ice was added to the water for the mix, which was controlled very carefully to assure the proper strength. About a week after the placement, when the concrete had set, the arch form was removed and moved to the next shelter, leaving the steel plates that had formed the roof of the form as a lining for the newly completed reinforced concrete arch.⁴⁹

The trouble at Ovda over the reinforcing steel was still unfolding when Brig. Gen. John F. Wall became involved in the project. When he first arrived in mid-March for an orientation visit, he had not yet been named project manager. A month later General Morris' office announced that Wall would take charge in Tel Aviv. Morris, who said he needed Noah back at Huntsville, thought Wall had an excellent background for the job. He had been district engineer at Fort Worth, "one of our busiest Districts," and Wray's deputy director of military construction in Washington. As soon as Wall completed work toward his law degree in May, Morris intended to send him over. Hartung and Bar-Tov would find Wall "a very conscientious, hard-working, and smart associate." Morris predicted that "the three will make a good team," and he expected "to keep [Wall] there until the air bases become operational." Although Morris did not consult Lewis before making the assignment, Lewis could take some satisfaction from the decision. His persistent campaign for a general officer in the Near East Project Office had at last borne fruit. Wall took over on 13 May.⁵⁰

Wall, who held a doctorate in civil engineering in addition to his new law degree, knew he was walking into a difficult situation. He expected that he would face problems as long as he stayed in Israel, but he was well suited for this kind of environment: "I'm not the type of individual who is going to have a blank sheet there that says there ain't no problems today." As far as his own career was concerned, he considered the assignment "a high-risk job for me." As far as the project was concerned, he shared Lewis' view: timely completion was critical to execution of the peace treaty and was his first priority. Overall, he saw "one alternative to finishing on time and that's finishing early." Plainly a man in a hurry, Wall came to the project at a difficult time. The steel issue was headed toward resolution but was uncovering problems with the overall procurement system and quality control procedures as it evolved. The issue also raised questions about management. Wall watched his staff at



General Wall, project manager from June 1980 to August 1982

work and attended briefings, which became the basis for hurried decisions regarding personnel changes.⁵¹

He found his new headquarters significantly different from Fort Worth District. "When you've got a going District," he explained, "a District Engineer has to work hard to make a mistake. Because when he makes a dumb decision, the staff makes it come out correctly because they were experienced, had done it before, and were damn good." In Tel Aviv the Corps had started from scratch, and, despite the acknowledged importance of the mission, had not always found well-qualified people for the job. Although he consid-

ered some civilian and military members of his staff to be well suited for the project, he was disappointed overall. "It's easy to make a dumb mistake," he said, when "you don't have the back-up."⁵²

There was no time for gradually learning about the project. At Ramon relations between labor and management were uneasy. Since shortly after the first Portuguese workers had arrived in September 1979, their relationship with Air Base Constructors had become stormy. Strongly unionist and quick to complain, several had lost their jobs for insubordination during their first months in Israel. Others resigned for a variety of reasons. Some found the unexpectedly cold and wet winter weather intolerable. Others complained about living conditions or the difficulty in getting along with American management. One worker complained that the Americans "don't understand us. Most of them prefer to bridge the noncommunication gap by shouting and not explanation and conversation." Others left because of the problems with explosives, both the duds buried on the site and the firing from the nearby artillery school.⁵³ The demands of the job also provided a major source of stress. The sixty-hour workweek was extremely taxing. "Very seldom in my experience," Fred Butler commented, "have any jobs been worked ten hours a day, six days a week, that were

honest hours . . . for long periods of time." At Ramon "they really work that time."⁵⁴

While the unionist Israeli press sympathized with the Portuguese about conditions at the site, the Israelis still found the Portuguese a troublesome presence. Affluent by Israeli standards, courtly, and well mannered, they charmed the women of Beer-sheva and the development towns. They also were aggressive. "The Portuguese offer marriage to every girl," said a woman from Beer-sheva. "One of the Portuguese offered to take me on a trip around the world and then marry me." A Dimona woman, who had been divorced by her Israeli husband and was preparing to leave the country with her new Portuguese spouse, said she was glad to be free of Israeli men, who she saw as "chauvinists, unmannered and spoiled." On the other hand, most Israeli women considered the Portuguese "polite, generous, and interesting." In addition to posing a threat to Israeli men, their presence challenged a social structure that opposed emigration and marriage outside of the Jewish faith. Fights broke out between workers and local youths in some towns. Under pressure from right-wing religious groups, Dimona declared itself off limits to foreign workers, and Yeruham banned nightclubs. The press featured stories of wealthy foreigners stealing local women, a theme familiar elsewhere but new to Israel. Newspapers that represented orthodox Jewry decried the "aspiritual havoc" and "grave . . . breaks in the tumbling wall of the Jewish family" caused by the Portuguese. Only their departure from Israel ended complaints about their negative influence.⁵⁵

By the end of 1979 the areas of tension between the Portuguese workers and contractor management were well known. Supervisors considered the Portuguese good workers, but it was plain that morale was low. In December, when improved living conditions convinced some workers to change their minds about leaving Ramon, O'Shei hoped that the worst was over. Problems persisted into 1980. Ultimately they caused enough concern in Tel Aviv for Gilkey to order Management Support Associates to analyze the situation. The conclusions verified what most observers already knew, citing Israeli artillery school shelling incidents as the largest single cause of departures. Gilkey asked O'Shei for solutions to the large turnover.⁵⁶

Events overtook the study of working conditions. On 24 May Ramon had a work stoppage that almost amounted to a general strike. Angered by the public search three days earlier of several workers who had been accused of theft, most of the Portuguese failed to report for work. They gathered around Butler's office and demanded higher pay, more vacations, and better food. The protest lasted one day. Claiming that the "cause of the disturbance

was a professional group of organizers," Air Base Constructors fired 319 Portuguese. The dismissals included many key workers and reduced the available work force by about 25 percent. The next day, two El Al planes returned the dissidents to Portugal. According to Butler, the site was back to "business as usual." Nevertheless, to make sure that a labor force would be available if the situation disintegrated, his parent firm made quiet contingency arrangements for workers from the Philippines.⁵⁷

Butler thought that the strike was politically motivated, and some observers agreed. Several Israeli papers and one Lisbon daily claimed that the organizers had previously worked on an air base construction project in Algeria, that they had connections with the Portuguese Communist party, and that they had been sent to Israel to disrupt the project. Wall's office also thought the leaders had been politically motivated and that they might have coerced their fellow workers into participation.⁵⁸

In less than a month the situation was almost back to normal. Israeli media interest, which lasted only a few days, reflected a revival of Histadrut's efforts to represent the foreign workers.⁵⁹ *Davar*, the Tel Aviv daily that had been the organ of the labor federation for forty-five years, commented somewhat wistfully that "if the Portuguese only had a labor union much of the friction would be resolved to the satisfaction of both parties."⁶⁰ In Portugal several papers covered the affair but only for a short time. The American embassy in Lisbon noted these articles and passed translations to program management through the embassy in Tel Aviv.⁶¹ The contractor was also busy in Lisbon recruiting new workers, who began to arrive in early June. By the middle of the month only 100 strikers were unreplaced. Wall's office estimated that adding one hour of overtime each day per worker had kept productivity within 10 percent of the prestrike level. Nevertheless, the loss of so many experienced workers set the project back substantially. New men filled the vacancies, but the stoppage delayed by about two months the expansion of the work force that had been planned for the summer.⁶²

At the other site, discontent among the Thai workers also caused concern. The area office noted that the most important complaint involved impoundment by Israeli customs authorities of shipments of Thai spices and fish sauce. The workers had been without these condiments for sixty days, and their frustration over the food was "catalyzing other gripes and complaints."⁶³ Unlike the situation at Ramon, contractor and Corps managers met with the Thais and discussed their grievances. The workers expressed their dissatisfaction with the eight-man rooms rather than with the food, and Negev Airbase Constructors took steps to reduce the

number in a room to six. The contractor also paid an American to act as ombudsman for the Thais and created a Thai council. Later in the summer the general manager agreed to hold monthly meetings with this group at his home.⁶⁴

The general manager who arranged regular meetings with the Thais was not the man who presided over the project during the steel troubles. On 5 June the Perini Corporation replaced Pettin-gell and two other senior people at the site. Wall, who had been disappointed at the lack of a sense of urgency within Negev Airbase Constructors management, was pleased.⁶⁵ The changes attracted newspaper attention, primarily in Israel but in the United States as well. Two of the three largest Tel Aviv dailies and the English-language *Jerusalem Post* prominently displayed stories on the removals. Along with the news came headline claims of mismanagement and even corruption in the program. The newspapers also complained that the program was not buying enough materials in Israel.⁶⁶

By this time a large portion of the Israeli press had made clear its opposition to the American presence. This hostility had several roots. Unionist dailies opposed the use of foreign labor of any sort in Israel. Papers representing orthodox religious groups reacted against the destabilizing effect of the suave Portuguese. Other papers took offense on nationalistic grounds, contending that foreigners should not have been brought into the country to do a job that Israelis could do as well. In the spring of 1980 the big issue in the newspapers was program management, particularly American management. Overall the Israeli press lacked confidence in the ability of the Corps of Engineers to do the job. *Ma'ariv* questioned the depth of the American commitment to the program. The paper said the management change served to prove that the Americans had not chosen the best people and cared little about saving money.⁶⁷ *Ha'aretz* cited cases of American inefficiency, among them extravagant use of air freight, importation of materials that were cheaper in Israel, and the quality control problems related to the reinforcing steel. According to the *Ha'aretz* story, senior officials in the Ministry of Defense, who were disappointed with the Corps of Engineers, claimed "that the Israelis are just as capable of planning and building the airports as are the Americans."⁶⁸

The charges of mismanagement and fraud convinced the three generals to call a press conference for 12 June. Nearly thirty representatives of various media attended, including correspondents for the American wire services and television networks. For the only time in the life of the program, Bar-Tov, Hartung, and Wall faced the press together. Displaying a united front, they defended the program and denied reports of waste and incompetence. Hartung

served as primary spokesman. He said the bases were on schedule and would be completed under budget. He also asserted that "in gross terms . . . we are right where we planned to be when we made the plan a year ago." The others also defended their work. Bar-Tov assured the reporters that the program "will cost less than the original" estimate, although the economic situation was uncertain. "In all my studies," he observed, "when I learned about double-digit inflation, I don't think that all these experts in economy thought that this term would be used for monthly inflation." Some of the claims in the newspapers echoed those that had come from his own office a few weeks earlier. However, before the reporters he defended the program's procurement practices, reminding the press that the original agreement between the two nations had required that purchases within Israel be held to a minimum.⁶⁹

Wall, who had been in Israel only a month, emphasized the commitment of the Corps of Engineers to the effort and extolled the integrity and responsibility of the contractors. He also acknowledged the ability of Israelis to build perfectly good air bases, but reminded his audience that the tight schedule had brought the Corps of Engineers into the country. He assured reporters that his relationship with Hartung and Bar-Tov was harmonious. "The cooperation among General Bar-Tov, General Hartung, and myself," he said, "has been outstanding and will improve even more. It's synergistic and its mutually supportive. I believe we can handle any problem that lies ahead together."⁷⁰

The journalists saw Wall's arrival as an attempt to deal with the management problems they associated with the program. One reporter, referring to "the interesting coincidence that shortly after your arrival three senior officials of the civilian contractor apparently lost their jobs," asked Wall about his involvement in the turnover at Ovda. He denied that the changes amounted to firings and said Morris had long tried to place a general officer in charge of the Near East Project Office. As to the contractor's personnel manager, Wall claimed that a change was made because the incumbent lacked adequate qualifications, "not that he wasn't doing a good job."⁷¹

Such statements did not reassure the journalists or their papers. A reporter who listened to the generals defend the program got "the feeling . . . that what we're missing here is the lead to my story."⁷² He did not understand why the meeting had been called. Three days later the *Jerusalem Post* editorialized that "the cover-up appears to be continuing."⁷³ A left-wing daily called the session "an orgy of mutual congratulations, pats on the back and embarrassing compliments."⁷⁴ To these newspapers and to *Ma'ariv*, which in the week

that followed ran a sharply critical three-day series on program management, the meeting must have seemed a waste of time.⁷⁵

Nevertheless, the press conference was noteworthy for at least one reason. It marked an instance of cooperation between the three agencies involved in the program. Despite the tensions of the previous months, the generals were united in defending their work and in assuring the public and the press of their commitment to the program goals. For the time being, what Wall termed "the three-legged stool" seemed on firm ground.

Notes

1. Noah interview.
2. OAO, Master Diary, 29 Mar 80, IABPC, 84/4.
3. Memo, Wong, 4 Apr 80, sub: Recapitulation of Approved Site Adaptation Drawings, IABPC, 86/4; MFR, Stanley N. Block, Project Manager, Engineering Division, Ovda Site, 13 Jun 80, sub: Reinforcing Steel Standardization, Ovda Airbase, IABPC, 86/4.
4. Interv, author with Bill Parkes, May 81, Ramon, Israel; Interv, author with Delbert D. Peterson, May 81, Ovda, Israel.
5. MSA Memo, David Soleimani for J. H. Leonard, 2 Nov 79, sub: 15 Percent Minimum Elongation for Rebars in Aircraft Shelters, IABPC, 86/4; Ltr, A. Milstein to Edgar Moon, NEPO Engineering Division, 25 Oct 79, sub: High Bond Steel Bars for Concrete Reinforcement in ACS, IABPC, 43/5; MFR, Bar-Tov and Hartung, n.d., sub: DOD/MOD PMs Meeting, 25 Oct. 1979, IABPC, 45/4; MFR, Thomas, 5 Nov 79, sub: Design and Engineering Meeting, 31 Oct. 1979, IABPC, 22/1; MFR, Thomas, 9 Nov 79, sub: Design and Engineering Meeting, 7 Nov. 1979, IABPC, 22/4; Interv, author with Col Richard L. Curl (Ret.), Oct 84, Washington, D.C.
6. Ltr, Eli Noy to Carl Damico, 21 Jan 80, IABPC, 43/5; MFR, Bar-Tov and Hartung, sub: DOD/MOD PMs Meeting, 25 Oct. 1979; MFRs, Thomas, 5 and 9 Nov 79; Ltr, Hartung to Deputy Project Manager, 23 Jan 80, sub: MOD Request for Information Concerning Purchase of 15 Percent Elongation Reinforcing Bars, IABPC, 31/3.
7. Curl interview; Fact Sheet, Attachment to Ltr, Hartung to Noah, 9 Mar 80, sub: Reinforcing Steel—Ovda, IABPC, 86/4.
8. Memo, Gilkey for Program Manager, 3 Feb 80, sub: MOD Request for Information Concerning Purchasing 15 Percent Elongation Reinforcing Bars, IABPC, 32/1.
9. DF, Richard Curl to Ronald Hallmark, 4 Feb 80, sub: Contract for NAC, IABPC, 86/4.
10. Curl interview.
11. DF, Hallmark to OAO, 23 Jan 80, sub: NAC Steel Procurement, IABPC, 86/4; DF, Curl to Hallmark, 4 Feb 80, sub: Contract for NAC.
12. MFR, Bar-Tov and Hartung, 28 Feb 80, sub: DOD/MOD PMs Meeting of 21 Feb. 1980, IABPC, 45/4; Noah interview.
13. DF, Kett to Gilkey, 27 Feb 80, sub: Visit to the Ovda Site 21 and 22 Feb. 1980, IABPC, 32/2.
14. Telex, Gilkey to Curl, 24 Feb 80, sub: Construction Quality Control, Quality Assurance on Rebars—Possible Use of Inferior Materials, IABPC, 32/2.
15. Bar-Tov interview, Apr 81; (Tel Aviv) *Ma'ariv*, 23 Nov 79.
16. Noah interview; Proceedings of Program Press Conference, Tel Aviv, 12 Jun 80 (audio tape) (hereafter cited as Proceedings of Press Conference, 12 Jun 80), IABPC, 92/2; (Tel Aviv) *Ma'ariv*, 23 Nov 79.
17. N. Steinberg interview; Noah interview; Lewis interview, Nov 83.
18. N. Steinberg interview.
19. Lewis interview, Nov 83.
20. Ibid.; Noah interview.
21. Noah interview.
22. Lewis interview, Nov 83.
23. Ibid.; Maloney interview, Aug 80.

24. Lewis interview, Nov 83.
25. MFR, Lt Col James R. Cranston, 7 Mar 80, sub: Reinforcing Steel, IABPC, 86/4.
26. Ltr, Hartung to Noah, 9 Mar 80, sub: Reinforcing Steel—Ovda, IABPC, 86/4.
27. Memo, Noah for Hartung, 10 Mar 80, sub: Reinforcing Steel—Ovda, IABPC, 86/4.
28. Memo, Block for Thomas, 12 Mar 80, sub: Reinforcing Steel, Ovda, IABPC, 86/4.
29. OAO, Master Diary, 11 Mar 80, IABPC, 84/4; Ltr, Curl to Pettingell, 11 Mar 80, sub: Quality Control—Rebar Steel, IABPC, 42/8.
30. N. Steinberg interview; OAO, Master Diary, 7 and 8 Mar 80, IABPC, 84/4; Noah interview.
31. OAO, Master Diary, 7 and 8 Mar 80; Noah interview.
32. Ltr, Pettingell to Curl, 12 Mar 80, sub: Quality Control—Rebar Steel, IABPC, 86/4; Trip Report, Roy Edwards, 12–13 Mar 80, Ovda (hereafter cited as Edwards Trip Report), IABPC, 86/4; MFR, Earl E. Wheatley, Construction Branch, OAO, 24 Mar 80, sub: Quality Control Testing Requirements for Aggregate, Cement, Concrete, Curing Compounds, and Admixtures, IABPC, 32/3; Telex, Noah to Curl, 2 Apr 80, sub: Reinforcing Steel, IABPC, 38/4.
33. Ltr, Pettingell to Curl, 12 Mar 80; Notes of Telephone Conversation, Ted Flecker, OAO, and Jim Perry, NEPO Engineering Division, 12 Mar 80, File 1515–13, Ovda Reinforcing Steel; Edwards Trip Report; Ltr, Col I. Gross, MOD PMO, to Cranston, 16 Mar 80, sub: Use of Elements in Which Reinforcement Does Not Meet Requirements, Ovda Aircraft Shelter Complexes, File 1515–13, Ovda Reinforcing Steel. All in IABPC, 86/4.
34. Telex, NEPO Construction Division to OAO and RAO, 12 Mar 80, sub: Transfer of Rebar from Ramon to Ovda, IABPC, 32/3; OAO, Master Diary, 15 Mar 80, IABPC, 84/4; Curl interview; Maloney interview, Aug 80.
35. OAO, Master Diary, 19 Mar 80, IABPC, 84/4; Noah interview.
36. Noah interview; Ltr, Gilkey to Hartung, 20 Mar 80, sub: Proposed Investigation Under Army Regulation 15–6, IABPC, 32/3; Ltr, Gilkey to Wong, 24 Mar 80, sub: Appointment of Board of Officers, IABPC, 42/8.
37. OAO, Master Diary, 26 Mar 80, IABPC, 84/4.
38. Ibid.; Ltr, Gilkey to Wong, 24 Mar 80; MFR, Wong, 28 Mar 80, sub: Board of Officers, IABPC, 42/8; N. Steinberg interview.
39. Board of Officers, Report of Findings and Recommendations, IABPC, 42/8; N. Steinberg interview.
40. Report of Findings and Recommendations; Memo, Brig Gen John F. Wall for Hartung, 22 May 80, sub: Removal of Unidentifiable Reinforcing Steel, Ovda, IABPC, 33/1; Curl interview; Interv, author with Otis W. Grafa, Jr., May 81, Ovda, Israel; Gilkey interview.
41. Telex, OAO to NEPO, 1 Apr 80, sub: NEPO Sitrep, IABPC, 14/2.
42. Telex, OAO to NEPO, 17 Apr 80, sub: NEPO Sitrep, IABPC, 14/3; NEPO Sitrep No. 38, 20 Apr 80, IABPC, 14/3; Telex, NEPO to RAO, 18 Apr 80, sub: Availability of 16 mm Rebar, IABPC, 33/1; OAO, Master Diary, 29 Apr, 5 May, 20 and 25 Aug, and 29 and 30 Oct 80, IABPC, 84/4 and 84/2.
43. MFRs, Block, 13 and 16 Jun 80, sub: Reinforcing Steel Standardization, Ovda Airbase, IABPC, 86/4.
44. Maloney interview, May 82; OAO, Master Diary, 17 Jan 80, IABPC, 84/4; Ltr, O'Shei to GM, ABC, 31 Jan 80, sub: Truck Scales, IABPC, 31/3; Telex, NEPO (P&S) to Area Engineers, 16 Apr 80, sub: Truck Scales, IABPC, 33/1; NEPO Sitrep No. 45, 25 Aug 80, IABPC, 14/10.

45. MFR, Wray, 7 Jun 80, sub: Report on Visit to Israeli Air Base Project, IABPC, 11/5; Interv, author with Joseph R. Chapla, Aug 80, Tel Aviv, Israel; Maloney interview, Aug 80; MFR, Noah, n.d., sub: 30 April Discussion with David Perini on NAC Operation, IABPC, 1/6.

46. Noah interview.

47. NEPO Sitrep No. 40, 5 Jun 80, IABPC, 14/5; OAO, Biweekly Sitrep, 1-15 Jun 80, IABP files, WNRC, Accession 77-83-1016, Box 10; DF, Damico, Acting Chief, Construction Division, 1 Aug 80, sub: Input for Letter to the Chief, IABPC, 33/2.

48. Ltr, O'Shei to Project Manager, 16 Jun 80, sub: Ramon Air Base Progress Report for the Period 1-15 June 1980; and Ltr, Col Paul W. Taylor to Project Manager, 15 Jul 80, sub: Ramon Air Base Progress Report 1-15 July 1980. Both in IABP files, WNRC, Accession 77-83-1025, Box 4. DF, Damico, 1 Aug 80, sub: Input for Letter to the Chief.

49. Wray comments on draft MS; Damico interview, Nov 88.

50. NEPO Sitrep No. 35, 26 Mar 80; NEPO Sitrep No. 38, 20 Apr 80; NEPO Sitrep No. 39, 22 May 80. All in IABPC, 14/1, 3-4. Lewis interview, Jan-Feb 82, parts 1-3; Ltr, Morris to Gilbert, 14 Apr 80.

51. Interv, author with Brig Gen John F. Wall, Aug 80, Tel Aviv, Israel, and Sep 82, Washington, D.C.; *ENR* 205 (30 October 1980): 29.

52. Wall interview, Aug 80.

53. ABC Weekly Progress Report, 12 Sep 79, IABPC, 12/11; *Jerusalem Post*, 5 Nov 79; (Tel Aviv) *Ha'aretz*, 28 Nov and 21 Dec 79; (Tel Aviv) *Ma'ariv*, 17 and 20 Dec 79; (Beersheva) *Sheva News*, 8 Feb 80.

54. Interv, author with Fred Butler, Aug 80, Ramon, Israel.

55. (Tel Aviv) *Hamodia*, 12 Feb, 10 and 27 Nov 81; (Tel Aviv) *Yediot Aharonot*, 18 Jun and 27 Aug 80; (Beersheva) *Sheva News*, 13 and 27 Jun and 19 Dec 80; (Tel Aviv) *Hazofe*, 9 Jan 81; (Tel Aviv) *Shearim*, 8 Nov 81 and 2 Mar 82; Brown interview, Apr 81.

56. ABC Weekly Sitrep, 17 Oct 79, IABPC, 12/16; O'Shei, Weekly Progress Report, 28 Dec 79, IABPC, 13/23; Memo, Gilkey for O'Shei, 4 May 80, sub: Portuguese Termination Listing, IABPC, 33/1.

57. ABC Weekly Sitrep, 27 May 80, IABPC, 14/5; *ENR* 205 (30 October 1980): 28; (Lisbon) *Diario de Lisboa*, 2 Jun 80; (Tel Aviv) *Yediot Aharonot*, 25 May 80; MFR, Wray, 7 Jun 80, sub: Report on Visit to Israeli Air Base Project.

58. (Tel Aviv) *Al Hamishmar*, 26 May 80; (Beersheva) *Sheva News*, 13 Jun 80; (Tel Aviv) *Ma'ariv*, 30 May 80; (Lisbon) *A Tarde*, 26 May 80; NEPO Sitrep No. 40, 5 Jun 80; Gilkey interview.

59. NEPO Public Affairs Office, Sitrep for the Period Ending 30 May 1980, IABPC, 14/5; (Tel Aviv) *Ma'ariv*, 6 Jun 80; (Tel Aviv) *Al Hamishmar*, 6 Jun 80.

60. (Tel Aviv) *Davar*, 30 May 80.

61. (Lisbon) *Diario de Lisboa*, 2 and 26 May 80; (Lisbon) *Primero de Janeiro*, 26 May 80; (Lisbon) *Diario de Noticias*, 27 May 80; (Lisbon) *Correio da Manhã*, 29 May 80, IABPC, 71/11.

62. NEPO Sitrep No. 40, 5 Jun 80; *Jerusalem Post*, 8 and 13 Jun 80; Gilkey interview.

63. Telex, OAO to NEPO, 16 May 80, sub: NEPO Sitrep, IABPC, 14/4.

64. OAO, Master Diary, 18 and 27 May, 4 Jul, and 21, 23, and 25 Sep 80, IABPC, 84/4 and 84/2.

65. Wall, Project Notebooks, vol. I, 24 May, 3 and 4 Jun 80, IABPC, 90. Warren Pettingell's article on the program makes no reference to the circumstances under which he departed. See Pettingell, "Managing Construction of a Macro-Airbase-Project in the Negev: A Contractor's Perspective," *Technology in Society: An International Journal* 10 (1988): 113-30.

66. *Newsview*, 8 Jun 82; (Tel Aviv) *Ma'ariv*, 10–12 Jun 80; (Tel Aviv) *Ha'aretz*, 11 Jun 80; *Jerusalem Post*, 13 Jun 80; *New York Times*, 12 Jun 80.
67. (Tel Aviv) *Ma'ariv*, 10–11 Jun 80.
68. (Tel Aviv) *Ha'aretz*, 11 Jun 80.
69. Proceedings of Press Conference, 12 Jun 80; *Jerusalem Post*, 13 Jun 80.
70. Proceedings of Press Conference, 12 Jun 80.
71. Ibid.
72. Ibid.
73. *Jerusalem Post*, 15 Jun 80.
74. (Tel Aviv) *Al Hamishmar*, 13 Jun 80.
75. (Tel Aviv) *Ma'ariv*, 17–19 Jun 80.